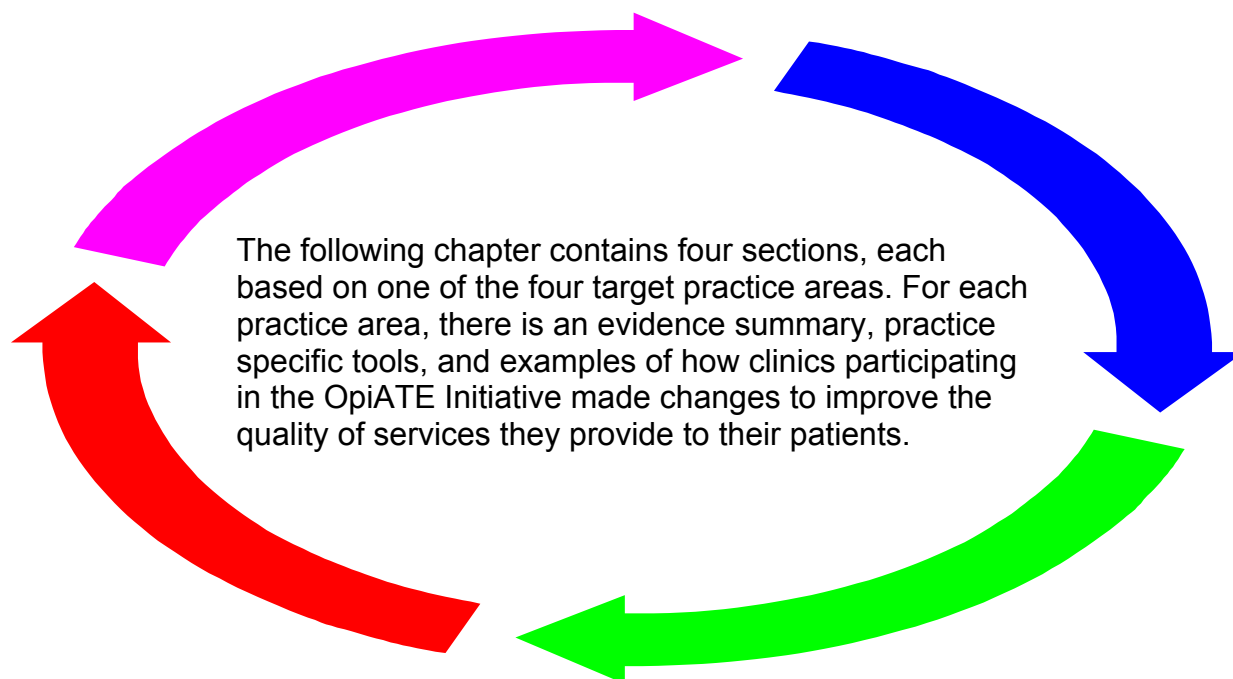


## Chapter 3

### Quality Improvement and the Four OAT Practice Areas



### Urine Toxicology Screening

Although urine screening is not one of the four targets of the Opiate Initiative, it is a necessary outcome measure. It may be one of the few measures available to gauge the success of your patients. It is also a necessary component to any contingency management protocol. Therefore, the Opiate Initiative recommends that urine toxicology screening be done weekly, especially with new, or unstable patients. With long-term, stable patients who are visiting the clinic less frequently, it is still important to screen at least monthly, preferably through a random callback schedule.

If staffing is a barrier to additional urine collection, your clinic may want to consider using self-contained urine test cups. These cups are available through many laboratory suppliers and can detect most substances of interest to OAT clinics. At the time of this publication, the cost was about \$10 per cup.



## Practice 1: Dose



*“I got a fact sheet from [Translation Facilitator] about our dosing. We’ve experienced a 15% increase in patients that are receiving doses of 60mg or more. That was one of the things we used for the JCAHO survey, it was very helpful.” –clinic coordinator*

Appropriate methadone dosing is a critical component of effective opioid agonist therapy (OAT). If a patient’s methadone dose is inadequate, she cannot benefit fully from improvements made in the three other practice areas, which are counseling frequency, program orientation, and contingency management. Therefore, it is recommended that your clinic focus first on current dosing practices and how they might be improved to better meet the needs of your patients. The following section contains a *Dosing Evidence Summary* with references, an *Expert Panel Consensus Statement*, a *Dosing Algorithm*, a *Dose Review Form*, a *LAAM-Methadone Conversion Chart*, and some examples of dosing policy changes made by OpiATE Initiative clinics.

Methadone has been used for the treatment of opiate addiction for more than 30 years. However, programs using methadone maintenance treatment vary greatly in their daily dosages. Several studies suggest that higher doses of methadone are more effective in treating narcotic addiction. Two areas of study focusing on dosage that have received much attention are dosage and its effects on program retention, as well as its effects on illicit opiate use.

Caplehorn and Bell (1991) looked at retention and dosing rates of patients on methadone and found that the maximum daily dose of methadone dispensed during the study period was a highly significant predictor of retention ( $p < 0.00001$ ). This study stratified the maximum daily dosage into three levels:  $< 60\text{mg}$ ,  $60\text{--}79\text{mg}$ , and  $80\text{+mg}$ ; and looked at retention rates of patients during a 450-day period. Using the lowest dose group as a baseline, they found the relative risk of leaving treatment was reduced by nearly half (0.47) for those in the middle dose group ( $60\text{--}79\text{mg}$  maximum daily dose). The relative risk was halved again for those in the highest dose group (0.21). A retrospective, longitudinal study by Magura, Nwakeze, & Demsky (1998) also found that higher methadone dosage was one variable significantly associated with longer retention ( $p \leq 0.01$ ). Rhoades, Creson, Elk, Schmitz, & Grabowski (1998) similarly reported that higher doses of methadone ( $80\text{mg}$  vs.  $50\text{mg}$ ) resulted in lower dropout rates. In a large observational study looking at treatment retention of heroin users in Italy, methadone dosage was found to be one of the most important factors affecting retention of the 721 patients in a methadone maintenance program (D’Ippoliti, Davioli, Perucci, Pasqualini & Baragagli, 1998). Patients receiving at least  $60\text{mg}$  were 70% more likely to stay in treatment when compared to those at a dosage of  $30\text{mg}$  or less. This same study found that treatment retention over one year was 54% for patients with

an average daily dose of 60mg or more. Patients with psychiatric comorbidity or cocaine dependency may require even higher doses (Maremmanni et al., 2000; and Magura, Nwakeze, & Demsky, 1998).

In 1997 the National Institutes of Health Consensus Development Conference stated “A dose of 60mg given once daily may achieve the desired treatment goal: abstinence from opiates.” Several other studies had similar findings in this area. A 1998 study on retention, HIV risk and illicit drug use during treatment, found the opiate-positive results on urine screens were approximately 20% in the 80mg group (Rhoades, Creson, Elk, Schmitz, & Grabowski, 1998). This was compared to 45% at the 50mg group. Strain, Stitzer, Liebson & Bigelow (1993) conducted a study in which patients were divided into three different dosage groups: 0mg, 20mg and 50mg. By treatment week 20, only the 50mg group experienced a reduced rate of opiate-positive urine samples; however, the rate of positive urine samples was still 56.4% (vs. 67.6% and 73.6% at the 20mg and 0mg groups, respectively). In a later study, Strain and colleagues (1999) investigated moderate dose (40-50mg/day) vs. high dose (80-100mg/day) methadone maintenance patients, and found the patients in the high dose group reported using illicit opiates no more than once a week, whereas the moderate dose group reported using two to three times per week. Similarly, Hartel and colleagues (1995) looked at heroin use during methadone treatment with high doses of methadone. They concluded that patients on less than 70mg were twice as likely to use heroin as those receiving 70mg or more.

Determining dose for an individual patient is based on a clinical evaluation of the patient, taking relevant factors into consideration (Blaney and Craig, 1998). A flexible approach, along with patient participation in the dose decisions, helps find the optimum dose to stabilize patients' lives (Maddux, Prihoda, & Vogtsberger, 1997).

In general, most studies of methadone maintenance treatment recommend that higher doses of methadone are more effective in retaining patients. In addition, several studies strongly support higher doses to promote abstinence from illicit opiates. Coexisting psychiatric and other drug dependence may indicate a need for a higher dose.

### Selected References

Blaney, T. & Craig, R. J. (1998). Methadone maintenance. Does dose determine differences in outcome? *Journal of Substance Abuse Treatment* 16 (3), 221-8.

Caplehorn, J. R. M., & Bell, J. (1991). Methadone dosage and retention of patients on maintenance treatment. *The Medical Journal of Australia*, 154, 195-9.

Del Rio, M., Mino A., & Perneger T. V. (1997). Predictors of patient retention in a newly established methadone maintenance treatment programme. *Addiction* 92 (10), 1353-60.

D'Ippoliti, D., Davoli, M., Perucci, C. A., Pasqualini, F., & Bargagli, A. M. (1998). Retention in treatment of heroin users in Italy: the role of treatment type and of methadone maintenance dosage. *Drug and Alcohol Dependence* 52, 167-71.

Effective medical treatment of opiate addiction. NIH Consensus Statement Online 1997. Nov. 17-19, 1997; 15 (6): 1-38.

Hartel, D. M., Schoenbaum, E. E., Selwyn, P. A., Kline, J., Davenney, K., Klein, R. S., & Friedland, G. H. (1995). Heroin use during methadone maintenance treatment: the importance of methadone dose and cocaine use. *American Journal of Public Health* 85 (1), 83-8.

Maddux, J. F., Prihoda, T. J., & Vogtsberger, K. N. (1997). The relationship of methadone dose and other variables to outcomes of methadone maintenance. *The American Journal on Addictions* 6 (3), 246-55.

Magura, S., Nwakeze, P. C., & Demsky, S. (1998). Pre- and in-treatment predictors of retention in methadone treatment using survival analysis. *Addiction* 93 (1), 51-60.

Maremmani, I., Zolesi, O., Aglietti, M., Marini, G., Tagliamonte, A., Shinderman, M., & Maxwell, S. (2000). Methadone dose and retention during treatment of heroin addicts with axis I psychiatric comorbidity. *Journal of Addictive Diseases* 19 (2), 29-41.

McGlothlin, W. H., & Anglin, M. D. (1981) Long-term follow-up of clients of high- and low-dose methadone programs. *Archives of General Psychiatry* 38, 1055-63.

Rhoades, H. M., Creson, D., Elk, R., Schmitz, J., & Grabowski, J. (1998). Retention, HIV risk, and illicit drug use during treatment: methadone dose and visit frequency. *American Journal of Public Health* 88 (1), 34-9.

Strain, E. C., Stitzer, M. L., Liebson, I. A. & Bigelow, G. E. (1993). Dose-response effects of methadone in the treatment of opioid dependence. *Annals of Internal Medicine* 119 (1), 23-27.

Strain, E.C., Bigelow, G. E., Liebson, I. A., & Stitzer, M. L. (1999). Moderate vs. high-dose methadone in the treatment of opioid dependence: a randomized trial. *Journal of the American Medical Association* 281 (11), 1000-5.

## Expert Panel\* Consensus on Dosing Practices in Methadone Maintenance

### Evidence Base

There is very strong evidence that methadone doses between 60-100mg daily are more effective than doses less than 60mg.

There is moderate evidence that within the recommended range of 60-100mg, higher doses are generally more effective than lower doses.

There is no evidence supporting an absolute upper limit on methadone dose.

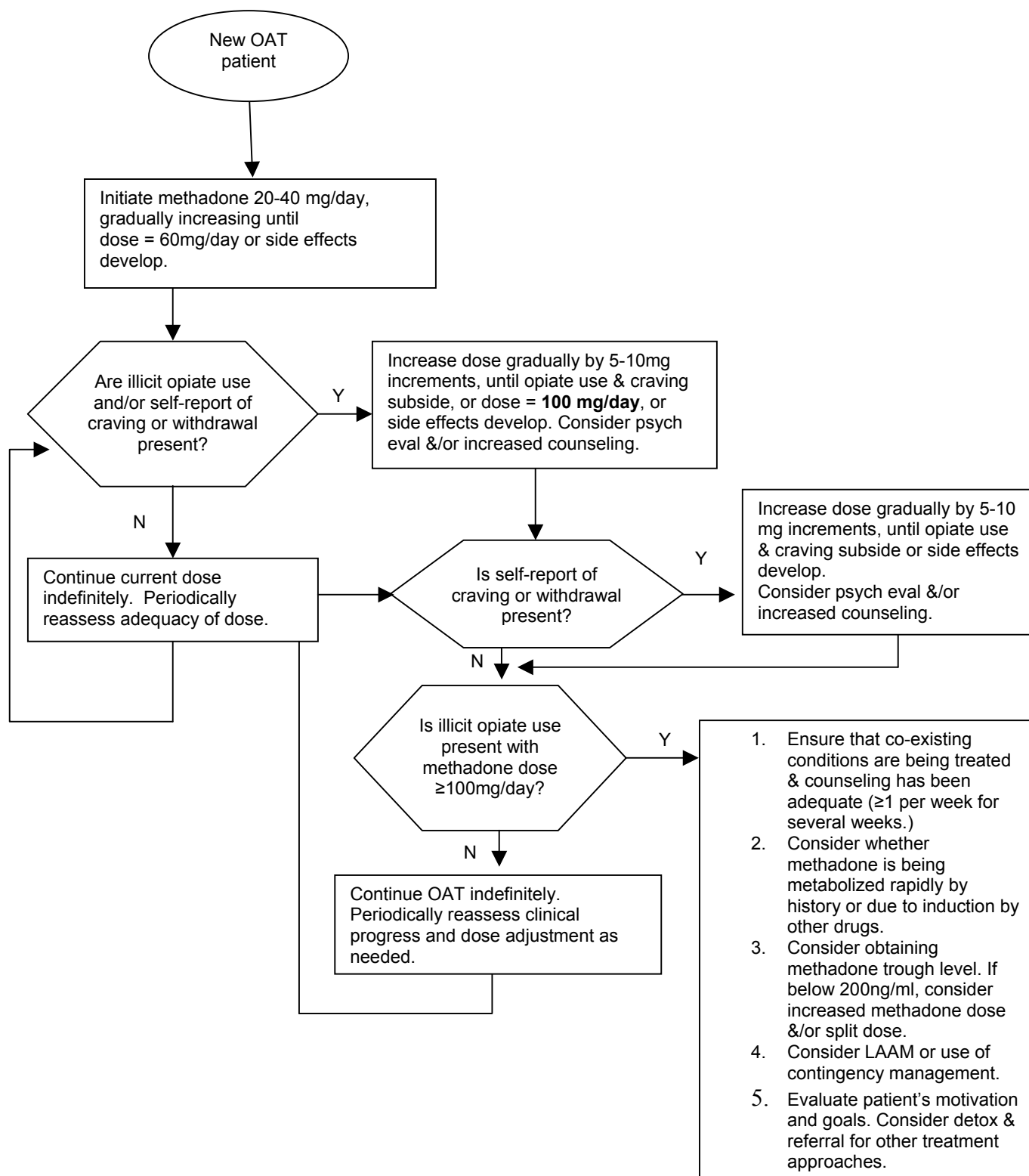
Although clinically some patients require doses above 100mg, research on the efficacy of doses over 100mg is limited.

### Consensus Statements

- 1) Dosage should be determined clinically, using clear outcome measurements (e.g., illicit opiate use, self-report of craving or withdrawal) to indicate effectiveness.
- 2) Clinical outcome is measured primarily by illicit opiate use by urine toxicology screen and self-report. Secondary measures include self-report of craving or withdrawal, other drug and alcohol use, and psychosocial function (e.g., employment or training, interpersonal functioning, illegal activities).
- 3) Most patients will require doses between 60-100mg to achieve stable outcomes. An estimated 10-20% of methadone patients has a good clinical outcome on stable daily doses of less than 60mg daily.
- 4) If illicit opioid use continues after methadone maintenance has been started, the dose should be increased gradually, until illicit opioid use stops, side effects develop, or the dose reaches 100mg daily.
- 5) If illicit opioid use continues at a methadone dose of 100mg daily, dose should be raised if the patient complains of withdrawal, craving, or "it's not holding me." There is no absolute upper limit on dose, nor is there convincing evidence that doses above 100mg are more effective for patients not complaining of withdrawal or craving.
- 6) If illicit opioid use continues at a dose of 100mg or more, and the patient is not complaining of withdrawal or craving, or if a patient receiving less than 100mg daily repeatedly refuses dose increases, consideration should be given to changing the treatment plan in other ways. Examples include:
  - a) Increasing counseling frequency
  - b) Implementing contingency management
  - c) Evaluation for coexisting mental disorders
  - d) Switching to LAAM
  - e) Discontinuation of agonist treatment and referral to drug-free treatment and naltrexone therapy.

*\*Members: Eric Strain, MD; George Woody, MD; Thomas Kosten, MD; Joseph Liberto, MD.*

## Dose Adjustment in Opioid Agonist





### Instructions for use of *Dose Review Form*

The *Dose Review* forms can be used as part of baseline data collection to assist in determining the extent to which the clinic is meeting best-practice dosing recommendations. Dose reviews can be repeated at specified intervals to document continued compliance with dosing recommendations (e.g., yearly) or to monitor progress toward increasing clinic performance on dosing recommendations (e.g., quarterly).

- 1) Counselors complete the Dose Review Form for each client that is on a dose of less than 60mgs of methadone or methadone equivalent per day.
- 2) *Dose Review* forms are reviewed in team meetings.
- 3) *Dose Review* forms with an **ACTION** item checked should be retained by the team coordinator for follow-up in one month to ensure that appropriate action has been taken.



**Dose Review Form**

(for patients on doses less than 60mg/day of methadone or equivalent)

Patient ID:

Current Dose (mg/day):

Reason for Current Dose:

1. ☐ Patient refuses dose increase despite continued use of illicit opiates.
  - a. ☐ **ACTION for patients concerned about risks of higher doses:**
    - 1) Counsel regarding risks/benefits of increased dose compared to continued illicit opiate use.
    - 2) Refer for a consultation with the medical director.
  - b. ☐ **ACTION for patients intentionally keeping dose low so he/she can continue to feel the effects of using heroin (i.e., “chip” or “shoot over their dose”):** Patient may need to be asked to choose between following clinic recommendations and leaving the program.
2. ☐ Patient is abstinent from illicit opiates.
  - ☐ **ACTION:** Monitor patient urine screen results for a minimum of six months to document stability.
3. ☐ Patient is currently on a voluntary taper from methadone/LAMM
  - a. ☐ **ACTION for patients using illicit opiates:** Counsel patient regarding the need to cease taper and return to a blocking dose.
  - b. ☐ **ACTION for patients abstinent from illicit opiates:** Monitor patient urine screens closely during taper. If illicit opiate use reoccurs, counsel patient regarding the need to cease taper and return to a blocking dose.
4. ☐ Patient is currently on an administrative taper from methadone/LAMM.
5. ☐ Patient cannot be on higher dose due to side effects or other medical concerns.
6. ☐ This is a new patient whose dose is still being titrated.
7. ☐ **NONE:** Patient does not fall into any of the above categories.
  - ☐ **ACTION: Dose increase** followed by monitoring of illicit opiate use, reports of cravings/withdrawal symptoms, and side effects (see dosing algorithm).

## LAAM-Methadone Conversion Chart\*

To convert LAAM dosage to methadone, use your *usual stable dose* of LAAM and divide by 1.2.

**Example:** Patient 1's dosing schedule is 90mg on Monday, 90mg on Wednesday, and 108mg on Friday. On Sunday, Patient 1 also receives a 27mg of methadone take-home dose. Patient 1's *usual stable dose* is 90mg.  $90 \div 1.2 = 75$ mg of methadone. Patient 2's dosing schedule is 50mg on Monday, 50mg on Wednesday, and 65mg on Friday. The *usual stable dose* is 50mg.  $50 \div 1.2 = 42$ mg of methadone.

Usual Stable Dose of LAAM (mg)	Methadone Equivalent (mg)
140	117
135	113
130	108
125	104
120	100
115	96
110	92
105	88
100	83
95	79
90	75
85	71
80	67
75	63
70	58
65	54
60	50
55	46
50	42

\*Conversion chart was designed by OpiATE Initiative staff; refer to manufacturer's guidelines to determine actual patient dosage.

## Practice 2: Counseling Frequency

Once your clinic has implemented a quality improvement strategy for methadone dosing and a system for measuring improvement, it may be appropriate to begin reviewing your clinic's current policies regarding one of the other three target practice areas discussed in the following sections. Quality improvement can be made in more than one target practice area at a time.

*"That was surprising [that our counseling frequency was low]. It seems like we see patients all the time, but I guess it's just that we see so many of them.*

*—clinic coordinator*



Opioid Agonist therapy (OAT) clinics provide a wide array of services beyond simply dispensing methadone and LAAM. These services generally include drug abuse counseling, urine monitoring, and social work services, and may include medical and psychiatric care, employment and educational counseling, and family services. While the major goal of OAT is to reduce illicit opioid use, much more has come to be expected of OAT, including reduced use of other drugs and alcohol, reduced criminal behavior, increased productive activity, and increased psychological well-being and social functioning (Cacciola, Alterman, Rotherford, McKay & McLellan, 1998). Beyond adequate methadone dosing, controversy continues regarding which elements of methadone maintenance therapy can be considered “active ingredients.” If methadone dosing alone were sufficient to prompt client change in the multiple outcomes that OAT clinics are expected to effect, unnecessary and expensive psychosocial services could be eliminated and more patients could be enrolled in OAT clinics. Logically, it seems unrealistic that dosing alone could have such a broad impact on so many areas of patients' lives. In fact, there is a strong clinical consensus that dosing alone does not meet appropriate standards of treatment for opiate addiction.

The clinical consensus that patient contact beyond dosing is a necessary ingredient in OAT is supported by a particularly well designed, randomized, controlled study comparing three levels of psychosocial services (McLellan, Arndt, Metzger, Woody, & O'Brien, 1993). Patients in all conditions received a minimum dose of 60mg of methadone. Minimal methadone services (MMS) consisted of virtually no counseling. Counselors saw patients for 15-minute appointments once per month. Standard methadone services (SMS) consisted of weekly counseling visits in the first month. After

the first month, if a patient showed improvement (e.g., decreased illicit opioid-positive urine screens and positive social change), counseling could be reduced to twice monthly. Patients who did not improve, or whose performance declined, were asked to attend sessions twice a week or more. Enhanced methadone services (EMS) consisted of counseling, as described for SMS, plus on-site medical and psychiatric, employment, and family therapy services. The results indicated that patients receiving MMS had significantly greater cocaine and illicit opioid use throughout the six-month treatment compared to the patients assigned to SMS or EMS. In addition, patients receiving SMS had significant changes in legal, family, and psychiatric problems that were not seen in the MMS group. Patients receiving EMS demonstrated significantly greater improvement than SMS patients in the same areas did. Most significantly, 69% of patients in MMS were protectively transferred to SMS because of eight consecutive illicit opioid or cocaine positive urine screens or three emergencies requiring immediate health care. Of the transferred patients, significant reductions in illicit opioid and cocaine use were evident within four weeks of the transfer with no change in methadone dose.

Kraft and her colleagues completed a cost-effectiveness study comparing the three conditions from the above study (Kraft, Rothbard, Hadley, McLellan, & Asch, 1997). They concluded that large amounts of support for methadone patients (EMS) improve outcomes as compared to moderate amounts of support (SMS), but only to a modest degree. On the other hand, moderate amounts of support improve outcomes as compared to minimum support (MMS) to a degree that offsets the additional expense of increased counseling. They concluded that SMS is the most cost-effective of the three treatment conditions, and that the findings of their analysis suggest a level below which supplementary support should not be allowed to fall.

In summary, it appears that “more is better” when considering services to offer as part of an OAT program. However, the incremental benefit of additional services may decline as more services are added. Given budget constraints that may effect many clinics, a *minimum* standard of weekly counseling visits in the first month of OAT involvement and monthly counseling visits during the next year is a reasonable standard. However, the design of the McLellan et al. (1993) study suggests that it is not simply time spent with a counselor but rather the responsiveness of the OAT program to patient behavior that affects patient outcomes. Several other studies have found that involvement of the patient with the program staff is an essential ingredient of effective OAT programs (Broome, Simpson, & Joe, 1999; Hser, Grella, Hsieh, Anglin & Brown, 1999; Joe, Simpson, & Broome, 1999; Magura, Nwakeze, & Demsky, 1998). Therefore, while monthly visits are set as a minimum standard for a stable patient, programs are encouraged to increase counseling frequency contingent on client behavior. For example, as in the McLellan study, patients who do not demonstrate a reduction in illicit opioid-positive urine tests in the first month of treatment should not have their counseling schedule reduced, and patients who enter a period of crisis (e.g., relapse, medical, interpersonal) should have their counseling schedule increased. Additional services such as medical and psychiatric care, employment counseling, and family services are encouraged.

If clinic leadership determines that increasing compliance with counseling frequency is an appropriate QI goal, there are several factors to consider. First, is it the clearly stated policy of the clinic that new patients (i.e., enrolled less than one month) and unstable patients (i.e., those testing positive for illicit substances) should be seen by their case manager a minimum of once per week, and that stable patients should be seen by their case manager a minimum of once per month? If not, the first step toward meeting best-practice recommendations is to make policy changes supportive of these recommendations and to clearly communicate these expectations to the clinic staff and patients.

If counseling frequency consistent with recommended levels is already clinic policy, the next step would be to assess clinic caseloads. In general, a caseload of no more than 50 clients is considered reasonable for a full-time case manager. However, this number assumes that case managers have a case mix that includes stable, long-term patients as well as new and unstable patients who require significantly greater time to manage. If a case manager has predominately new or unstable patients, a caseload of 35 to 40 may be more reasonable. If this is not possible, the clinic may have to limit the number of new intakes until the clinic census stabilizes at a level that can be adequately served by the existing staff.

If policies supporting counseling frequency recommendations are in place and clearly communicated to staff, and caseloads are assessed to be within a reasonable range, it may be a matter of educating staff about the importance of regular case management contact to client outcomes. The monthly *Case Management Forms* can be used by the clinic leadership to monitor an individual case manager's progress toward meeting counseling expectations.

Counseling frequency is a relatively simple practice to monitor, but implementing changes may be more challenging, depending on your clinic's current policies and available resources (e.g., staffing, program funding).

### Selected References

- Cacciola, J. S., Alterman, A. I., Rutherford, M. J., McKay, J. R., & McLellan, A. T. (1998). The early course of change in methadone maintenance. *Addiction*, 93(1), 41-49.
- Kraft, M. K., Rothbard, A. B., Hadley, T. R., McLellan, A. T., & Asch, D. A. (1997). Are supplementary services provided during methadone maintenance cost-effective? *American Journal of Psychiatry*, 154(9), 1214-1219.
- McLellan, A. T., Arndt, I. O., Metzger, D. S., Woody, G. E., & O'Brien, C. P. (1993). The effects of psychosocial services in substance abuse treatment. *Journal of the American Medical Association*, 269(15), 1953-1959.
- Broome, K. M., Simpson, D. D., & Joe, G. W. (1999). Patient and program attributes related to treatment process indicators in DATOS. *Drug and Alcohol Dependence*, 57, 127-135.

Hser, Y., Grella, C. E., Hsieh, S., Anglin, M. D., & Brown, B. S. (1999). Prior treatment experience related to process and outcomes in DATOS. *Drug and Alcohol Dependence*, 57, 137-150.

Joe, G. W., Simpson, D. D., & Broome, K. M. (1999). Retention and patient engagement models for different treatment modalities in DATOS. *Drug and Alcohol Dependence*, 57, 113-125.

Magura, S., Nwakeze, P. D., & Demsky, S. Y. (1998). Pre- and in-treatment predictors of retention in methadone treatment using survival analysis. *Addiction*, 93(1), 51-60.

## Practice 3: Program Orientation (Abstinence vs. Maintenance)



A treatment provider's orientation toward abstinence or maintenance directly influences patient treatment outcomes, as the following evidence-based summary explains. Provider and clinic level orientation can be easily assessed using the 14-item *Abstinence Orientation Scale* (AOS) (Caglehorn, Lumley and Irwig, 1998). How to score and interpret this scale can be found following the evidence summary. Finally, there are examples of how clinic coordinators and directors participating in the OpiATE Initiative have used these materials to educate both themselves and their staff regarding the benefits of a maintenance oriented approach to OAT.

*"In general, there has been an attitudinal shift in some of the counselors from the notion of detox orientation to maintenance orientation; more of them are accepting of maintenance than they were when we started this process a year ago. More of them are willing to consider that methadone is a medication, just as insulin is a medication."*  
—clinic coordinator

Retention of patients in opioid agonist therapy (OAT) reduces heroin use and criminality, health risk behaviors from drug injections, and HIV and mortality rates. (Caglehorn, McNeil, & Kleinbaum, 1993). In fact, patients who are receiving OAT are at one quarter the risk of dying compared to addicts who are not currently receiving OAT (Caglehorn, Dalton, Halder, Nisbet, & Petrenas, 1996). Therefore, it is important to identify program characteristics that are correlated with treatment retention. One treatment factor that has received significant research attention is the orientation of the OAT program. Caglehorn and his colleagues have identified what they refer to as an abstinence orientation (Caglehorn, Irwig, & Saunders, 1996). Abstinence orientation is characterized by beliefs that it is unethical to maintain patients on an opioid agonist indefinitely, and that the goal of any treatment program should be abstinence from all substances, including opioid agonists. They compared OAT clinics whose physicians scored high on the *Abstinence Orientation Scale* to clinics whose physicians scored low on the scale and found that programs whose physicians were more committed to an abstinence orientation had a significantly greater rate of premature discharges. Caglehorn and his colleagues (1993) also compared two clinics with very different treatment attitudes. Clinic 1 was strongly abstinence oriented and attempted to limit OAT to no more than two years. Clinic 2 provided long-term OAT maintenance. Clinic 1 had a significantly shorter average time in treatment (less than clinic policy of two years). Patients in Clinic 1 were twice as likely to leave treatment in the second six-

month period and three times more likely to leave treatment in the third six-month period compared to patients in Clinic 2.

In a survey of 172 OAT programs in the United States, D'Aunno and Vaughn (1992) also found that an abstinence orientation was associated with other treatment factors that are correlated with poor outcomes (i.e., shorter treatment periods, lower limits on methadone dose, and lower average methadone dose). A strong abstinence orientation has also been shown to correlate with clinic policies such as less patient participation in dose strategy, more stringent take-home policies, and more punitive responses to illicit drug use (Caplehorn et al., 1993). Caplehorn and colleagues (1993) speculate that these types of clinic policies lead to an "us-them" frame of mind that interferes with the patients' ability to feel a connection to the treatment team and subsequently interferes with program retention. Caplehorn, Hartel, and Irwig (1997) also reported that high *Abstinence Orientation Scale* scores were negatively correlated with scores on a test of knowledge of OAT risks and benefits. This finding supports increasing continuing education funding and time to educate program staff regarding the benefits of long-term OAT maintenance.

Poor outcomes have not only been documented in patients who drop out of treatment but also in patients who are discharged after successful treatment and withdrawal from OAT (Milby, 1988). Because of the continued controversy over the ethics and expense of maintaining addicts on OAT for indefinite periods of time, Magura and Rosenblum (2001) completed a literature review to determine if it is ever wise to encourage detoxification and if so, for which patients under what conditions. Magura and Rosenblum looked at studies assessing time-limited OAT programs, planned detoxifications from OAT, and outcomes for patients leaving OAT for unspecified reasons. They identified three main conclusions from their review: 1) most patients who leave OAT are not identified by their clinic as ready for discharge, 2) among patients who begin a planned discharge, most leave treatment before completing their detoxification, and 3) among patients who do complete a planned discharge, most relapse to heroin. They concluded that the number of patients who can achieve a narcotic-free state is low. Even among patients who express high motivation to detox and who are identified by clinic staff as rehabilitated and ready for discharge, the majority return to narcotic use.

A study by Sees and colleagues (2000) provides an example of the kind of findings that were summarized by Magura and Rosenblum's (2001) review. This study compared one-year outcomes for patients randomly assigned to methadone maintenance or to a 180-day, psychosocially enriched detoxification treatment in which patients were maintained on methadone for four months and then tapered off over the next two months. During months six through twelve, aftercare services, including individual and group psychotherapy and social services, were available to detoxification patients. The findings indicated that there was no significant difference in illicit opioid positive urines for the two groups during the first four months of treatment when both were on maintenance doses of methadone. Starting with month five, when detoxification was initiated, the positive urine rate for the detoxification group increased markedly



compared to the maintenance group and remained high through month twelve. In addition, the dropout rate for the detoxification group increased as the methadone dose decreased. The major finding was that the maintenance patients were retained in treatment significantly longer than the detoxification group (483 vs. 174 days). Both Sees and colleagues (2000) and Magura and Rosenblum (2001) reach the conclusion that, given the dire consequences to the addict and the cost to society of a return to injecting heroin (e.g., increased criminality, HIV infection rates, and mortality), indefinite maintenance in OAT is the only satisfactory treatment alternative for opiate dependence.

### Selected References

Caplehorn, J. R. M., Dalton, M. S. Y. N., Haldar, F., Nisbet, J. G., & Petrenas, A. (1996). Methadone maintenance and addicts' risk of fatal heroin overdose. *Substance Use & Misuse*, 31, 177-196.

Caplehorn, J. R. M., Hartel, D. M., & Irwig, L. (1997). Measuring and comparing the attitudes and beliefs of staff working in New York methadone maintenance clinics. *Substance Use & Misuse*, 32(4), 399-413.

Caplehorn, J. R. M., Irwig, L., & Saunders, J. B. (1996). Physicians' attitudes and retention of patients in their methadone maintenance programs. *Substance Use & Misuse*, 31(6), 663-677.

Caplehorn, J. R. M., McNeil, D. R., & Kleinbaum, D.G. (1993). Clinic policy and retention in methadone maintenance. *The International Journal of the Addictions*, 28(1), 73-89.

D'Aunno, T. & Vaughn, T. E. (1992). Variations in methadone treatment practices: Results from a national study. *Journal of the American Medical Association*, 267(2), 253-258.

Magura, S. & Rosenblum, A. (2001). Leaving methadone treatment: Lessons learned, lessons forgotten, lessons ignored. *The Mount Sinai Journal of Medicine*, 68(1), 62-74.

Milby, J. B. (1988). Methadone maintenance to abstinence: How many make it? *Journal of Nervous and Mental Disorders*, 176(7), 409-422.

Sees, K. L., Delucchi, K. L., Masson, C., Rosen, A., Clark, H. W., Robillard, H. (2000). Methadone maintenance vs. 180-day psychosocially enriched detoxification for treatment of opioid dependence: A randomized controlled trial. *Journal of the American Medical Association*, 283(10), 1303-1310.

## Abstinence Orientation Scale

*Used with permission of J.R.M. Capelhorn*

The *Abstinence Orientation Scale* is used as an indicator of a clinic's approach to Opioid Agonist Therapy. The 14-item scale asks questions about treatment goals and approaches. Each of these items is rated by the respondent on a 1-5 point scale, with lower scores reflecting a maintenance orientation, and higher scores indicating an abstinence orientation. A maintenance orientation is reflected by therapy that supports long-term opioid agonist therapy (OAT), whereas abstinence orientation supports an ultimate goal of detoxification from all opioid agonists. Abstinence orientation has been linked to lower retention rates, more restrictive dosing and take-home privileges and more punitive responses to illicit drug use. Counselors that endorse abstinence are also more likely to score lower on a test of knowledge of OAT risks and benefits. A score higher than three would suggest that at least some staff hold fairly strong abstinence orientation beliefs. If your clinic has scored close to 3 or higher, you may want to consider interventions for increasing your staff members' knowledge about the benefits of long-term OAT and the risks associated with detoxification. Suggestions include inviting guest speakers on this topic or developing a journal club for staff to read and discuss key articles related to this issue. Key references are listed in the orientation evidence summary.

### *Scoring the Orientation Scale:*

The items are scored on a five point Likert scale with strongly disagree having a score of 1; disagree = 2; uncertain=3; agree = 4; and strongly agree =5. On questions 3, 5, 12, and 14, the score was reversed, with strongly disagree = 5, disagree = 4, uncertain = 3, etc. Scores are calculated by dividing the total for the scale by the number of questions answered, with a range of 1-5. If you are using the *Excel Case Management Log*, you do not need to reverse score questions 3, 5, 12, and 14. The computer program will automatically reverse score them for you.

## *Abstinence Orientation Scale*

*Used with permission of J.R.M. Capelhorn*

**Please indicate your level of agreement with each of the following statements, using the scale provided. Please select only one answer for each statement.**

1. Methadone maintenance patients who continue to use illicit opiates should have their doses of methadone reduced.

☐ Strongly Disagree    ☐ Disagree    ☐ Uncertain    ☐ Agree    ☐ Strongly Agree

2. Maintenance patients who ignore repeated warnings to stop using illicit opiates should be gradually withdrawn off methadone.

☐ Strongly Disagree    ☐ Disagree    ☐ Uncertain    ☐ Agree    ☐ Strongly Agree

3. No limits should be set on the duration of methadone maintenance.

☐ Strongly Disagree    ☐ Disagree    ☐ Uncertain    ☐ Agree    ☐ Strongly Agree

4. Methadone should be gradually withdrawn once a maintenance patient has ceased using illicit opiates.

☐ Strongly Disagree    ☐ Disagree    ☐ Uncertain    ☐ Agree    ☐ Strongly Agree

5. Methadone services should be expanded so that all narcotic addicts who want methadone maintenance can receive it.

☐ Strongly Disagree    ☐ Disagree    ☐ Uncertain    ☐ Agree    ☐ Strongly Agree

6. Methadone maintenance patients who continue to abuse non-opioid drugs (e.g., benzodiazepines) should have their dose of methadone reduced.

☐ Strongly Disagree    ☐ Disagree    ☐ Uncertain    ☐ Agree    ☐ Strongly Agree

7. Abstinence from all opioids (including methadone) should be the principal goal of methadone maintenance.

☐ Strongly Disagree    ☐ Disagree    ☐ Uncertain    ☐ Agree    ☐ Strongly Agree

8. Left to themselves, most methadone patients would stay on methadone for life.

☐ Strongly Disagree    ☐ Disagree    ☐ Uncertain    ☐ Agree    ☐ Strongly Agree

9. Maintenance patients should only be given enough methadone to prevent the onset of withdrawals.

☐ Strongly Disagree    ☐ Disagree    ☐ Uncertain    ☐ Agree    ☐ Strongly Agree

10. It is unethical to maintain addicts on methadone indefinitely.

☐ Strongly Disagree    ☐ Disagree    ☐ Uncertain    ☐ Agree    ☐ Strongly Agree

11. The clinician's principal role is to prepare methadone maintenance patients for drug-free living.

☐ Strongly Disagree    ☐ Disagree    ☐ Uncertain    ☐ Agree    ☐ Strongly Agree

12. It is unethical to deny a narcotic addict methadone maintenance.

☐ Strongly Disagree    ☐ Disagree    ☐ Uncertain    ☐ Agree    ☐ Strongly Agree

13. Confrontation is necessary in the treatment of drug addicts.

☐ Strongly Disagree    ☐ Disagree    ☐ Uncertain    ☐ Agree    ☐ Strongly Agree

14. The clinician should encourage patients to remain in methadone maintenance for at least three to four years.

☐ Strongly Disagree    ☐ Disagree    ☐ Uncertain    ☐ Agree    ☐ Strongly Agree

*Thank you for your help*

## Practice 4: Contingency Management

Contingency management is the fourth evidence-based practice area. Its implementation requires individual patient-based planning and an awareness of the evidence-based practices discussed in the three previous sections: dosing, counseling frequency, and program orientation. This last section contains a contingency management evidence summary, a step-by-step guide with ideas for developing and implementing a contingency management policy in your clinic, and some examples of the approaches that OpiATE Initiative clinics took to develop and implement contingency management.



*“The use of Contingency Management. We’re real quick to take take-homes away if the patients are dirty; that was in place before. However, the counseling staff are more alert to getting patients into a take-home schedule once they qualify. This is my sense any way.” —clinical coordinator*

Contingency management (CM) is the term used to describe substance abuse treatment that structures the client’s environment in such a way as to encourage change. This is accomplished by setting specific, objective behavioral goals and specific, objective consequences for meeting or not meeting those goals. Numerous, well controlled laboratory and outpatient studies have provided unambiguous evidence that drug use behaviors can be modified by environmental consequences (Kidorf & Stitzer, 1999). As used in opioid agonist therapy (OAT) programs, CM techniques have been successfully used to promote the reduction or elimination of illicit drug use (Stitzer, Bigelow & Liebson, 1980). Within OAT programs, CM techniques that make clinic privileges contingent on evidence of abstinence are one of the only specific interventions for continued poly-drug abuse to have been systematically evaluated for efficacy (Stitzer, Iguchi, & Felch, 1992). At little additional cost, CM programs clarify expectations of clients and provide objective, standard consequences for their behavior.

Both positive incentives for clean urines (e.g., monetary reinforcement, dose increases, take-home privileges) and negative incentives for drug positive urines (e.g., dose decreases, discharge from treatment) are effective in reducing drug use on average for those left in the group. However, positive reinforcers have the advantage of retaining clients in treatment for longer periods (Stitzer et al., 1992). Contingent treatment availability obviously reduces clients’ treatment period if they are unable to comply with

the goals of the contingency program. Methadone dose decreases for drug positive urines also reduce treatment periods because of increased dropouts. Stitzer and colleagues compared a positive incentive CM program, which provided dose increases for clean urines, to a negative incentive CM program, which decreased dose for drug-positive urine (Stitzer, Bickel, Bigelow & Liebson, 1986). While they found that approximately half of the patients in both groups showed marked improvement in their percentage of drug-positive urines, they also found that the patients in the negative incentive condition were more likely to leave treatment early. Nollimal and Crowley (1990) also evaluated the effectiveness of decreases in contingent methadone dosing and came to the same conclusion that drug use was clearly reduced, but that 36% of the patients chose to detoxify and leave treatment rather than stop illicit drug use. Nollimal and Crowley concluded that the risk of discharge outweighed the benefits of the contingent dose intervention. This is an extremely important consideration given that retention in an OAT program reduces criminality, HIV infection rates, and mortality.

Contingent take-home doses provide a simple and low cost positive incentive that has been consistently rated by patients as the most desirable incentive (Chutuape, Silverman, & Stitzer, 1998). Take-home doses have also been shown to be the most powerful incentive available in OAT clinics, and therefore are the most highly recommended (Chutuape, Silverman, & Stitzer, 2001). The evidence for the success of take-home incentive programs is extensive. Stitzer and colleagues (1992) implemented a program in which two weeks of clean urines were required to earn one take-home day. Clients could earn a maximum of three take-home days. Any positive urine test during a two-week period resulted in a loss of one take-home day. Thirty-two percent of the clients on the contingency program qualified as “improved” compared to only 8% of clients who received their take-home doses randomly. In addition, 28% of control clients improved when crossed over from the control to the contingent condition. Across multiple studies and multiple target drugs (e.g., opiates, cocaine, benzodiazepine), the percentage of patients improving with contingent take-home programs is surprisingly consistent at 30-50% (Iguchi, Stitzer, Bigelow & Liebson, 1988; Kidorf & Stitzer, 1999; Magura, Casriel, Goldsmith, Strug, & Lipton, 1988; Milby, Garrett, English, Fritsch, & Clarke, 1978).

Most OAT clinics provide take-home privileges at some point during treatment but do not use take-home privileges in a flexible and responsive CM program that provides immediate rewards for changed behavior (Stitzer et al., 1992). One major problem with many current take-home policies is that the time between the goal and the consequence is too long. Often clients are required to submit three months worth of clean urines before they are rewarded with a take-home dose. As described above, for maximum effectiveness, incentives should be awarded as proximally to the goal behavior as possible (Kidorf & Stitzer, 1999). Therefore, take-home CM programs generally require as little as two weeks of clean urines before awarding a take-home dose. While research protocols allow take-home privileges sooner than do federal standards for patients who have entered treatment, OAT programs can still work within Federal guidelines of take-home dosage and apply the principles of CM. For example, when a client has been in a program for 90 days and is eligible for a second take-home dose,

receiving this privilege can be based on the client's urine test results for the past two weeks, and maintaining this privilege can then be contingent on the client's continued submission of clean urine samples. Implementing a take-home contingency program is a matter of formalizing policies about when take-home privileges will be granted, and when those privileges will be revoked.

### Selected References

Chutuape, M., Silverman, K., & Stitzer, M. L. (1998). Survey assessment of methadone treatment services as reinforcers. *American Journal of Drug and Alcohol Abuse* 24 (1), 1-16.

Chutuape, M. A., Silverman, K., & Stitzer, M. L. (2001). Effects of urine testing frequency on outcome in a methadone take-home contingency program. *Drug and Alcohol Dependence* 62(1), 69-76.

Iguchi, M. Y., Stitzer, M. L., Bigelow, G. E., & Liebson, I. A. (1988). Contingency management in methadone maintenance: Effects of reinforcing and aversive consequences on illicit polydrug use. *Drug and Alcohol Dependence*, 22, 1-7.

Kidorf, M., & Stitzer, M. L. (1999). Contingent access to clinic privileges reduces drug abuse in methadone maintenance patients. In Higgins, S. T. & Silverman, K. (Eds.), *Motivating behavior change among illicit-drug abusers: Research on contingency management interventions*. Washington, D.C.: American Psychological Association.

Magura, S., Casriel, C., Goldsmith D. S., Strug, D. L., & Lipton, D. S. (1988). Contingency contracting with poly-drug abusing methadone patients. *Addictive Behaviors* 13, 113-118.

Milby, J. B., Garrett, C., English, D., Fritschi, O., & Clarke, C. (1978). Take-home methadone: Contingency effects on drug seeking and productivity of narcotic addicts. *Addictive Behaviors* 3, 215-220.

Nolimal, D., & Crowley, T. J. (1990). Difficulties in a clinical application of methadone dose contingency contracting. *Journal of Substance Abuse Treatment* 7, 219-224.

Stitzer, M. L., Bickel, W. K., Bigelow, G. E., & Liebson, I. A. (1986). Effect of methadone dose contingencies on urinalysis test results of poly-drug abusing methadone maintenance patients. *Drug and Alcohol Dependence* 18, 341-348.

Stitzer, M., Bigelow, G. E., & Liebson, I. (1980). Reducing drug use among methadone maintenance clients: Contingent reinforcement for morphine-free urines. *Addictive Behaviors* 5, 333-340.

Stitzer, M. L., Iguchi, M. Y., & Felch, L. J. (1992). Contingent take-home incentive: Effects on drug use of methadone maintenance patients. *Journal of Consulting and Clinical Psychology* 60 (6), 927-934.

## Developing a Contingency Management Plan for Take-Home Privileges


This is a tool for assisting clinics in developing a contingency management plan for take-home privileges that will be feasible and acceptable for clinic staff. First, an example of a contingency management plan will be presented. Second, a series of questions for discussion are presented which will assist clinic staff in modifying the example plan for practical implementation in their clinic. This sample is consistent with current federal regulations regarding patient access to methadone take-home doses.

### An Example Contingency Management Plan

The staff at OAT Clinic 1 has decided that they want to implement a contingency management (CM) plan for take-home privileges that is as consistent with the evidence for effective CM plans as possible given the constraints placed on them by federal regulations.

Take-home number one: 

Clinic 1 is open Monday through Saturday. Therefore, all clients immediately receive one take-home dose per week on entry into the clinic.

Take-home number two: 

Based on federal regulations, in the first three months of treatment, Clinic 1 can award one discretionary take-home dose every week beyond the dose they give out to every patient for Sunday. The staff decides that it is going to use this one take-home dose to try to reduce the rate of urine screens that are positive for opiates, cocaine, amphetamines, and benzodiazepines.

*It is highly recommended that clinics focus their first three to four discretionary take-homes on abstinence. However, this combination of targeted drugs is only one option. Clinics will differ in the prevalence of positive urine screens for particular drugs. Some clinics may choose to target opiates only. Some may choose opiates and cocaine as the target drugs. Others may have a large problem with benzodiazepines use but little amphetamine use and may therefore choose to target opiates, cocaine, and benzodiazepines but not amphetamines.*

The staff at this clinic has decided not to focus the CM protocol on marijuana and alcohol use until patients are able to demonstrate abstinence from other drugs.



*It is recommended that alcohol and marijuana use be “higher level” targets in a CM protocol (i.e., not used as a behavioral goal until patients are able to demonstrate abstinence from other substances). This is not to imply that abstinence from these substances is not encouraged or addressed in other ways. Counseling visits and recommendations for additional treatment, or AA/NA involvement, particularly for patients with serious dependency issues, can also be helpful.*

Based on their research into contingency management, they know it is important to set an objective behavioral goal, and that it is important to reward achievement of that goal as immediately as possible. They decide that they will reward their patients with the one discretionary dose after submission of two drug-free urine samples. This particular clinic tests urine once a week for every patient, therefore when a client submits two drug-free urine screens in a row, she receives an extra take-home dose starting the following week.

*Note: It is ideal for implementation of a CM plan to test urine weekly. Clinics that test less often (e.g., once per month), may want to consider ways to increase their testing schedule. If this is not feasible, then a patient’s take-home schedule could be set for a month following a drug-free urine test.*

The patient’s take-home privilege is reevaluated every week based on her most recent urine test. As long as the tests continue to be negative, the patient retains her discretionary take-home. If a patient submits a positive urine, the privilege is revoked until the patient is again able to submit two negative urine screens. Clinic 1 staff decides that this first discretionary take-home will always be awarded on Saturdays. This eliminates any negotiation with patients or confusion about when they will receive their take-home dose.

Take-home number three:



Once a patient has been enrolled with a clinic for three months, federal regulations allow for a third take-home dose. Clinic 1 staff decides that this discretionary take-home should also be rewarded for urine tests free of the four target drugs.

*Clinic 1 has decided to continue to target the same drugs for take-home three as for take-home two. This does not have to be the case. For example, a clinic may choose to target opiates only with the first take-home, then target opiates and cocaine for the second take-home, and then target all four drugs for the third take-home.*

Clinic 1 also decides that the third take-home will always be given on Thursdays. Again, this eliminates negotiation with patients. In addition, the staff chose Thursday (as opposed to Friday or Monday) to decrease the number of take-home doses that a patient would have in her possession at one time. To earn her third take-home, a patient must submit four consecutive weeks worth of drug-free urines. Take-home privileges continue to be reevaluated every week. Once a patient has earned three take-homes,

she continues to receive these take-homes as long as drug-free urine samples are provided. If a patient submits one positive urine, her third take-home is revoked. The patient must then submit two consecutive drug-free urines to regain her third take-home. If a patient submits a second positive urine while on a two take-home schedule, she then also loses her second take-home. She then must submit two consecutive drug-free urines to regain her second take-home and two additional consecutive drug-free urines to regain her third take-home.

Take-home number four:



Once a patient has been enrolled with a clinic for six months, federal regulations allow for a fourth take-home dose. Clinic 1 staff decides to continue to focus take-home privileges on urine tests free of the target drugs. The staff decides that the fourth take-home dose will be given on Tuesdays. Again, this decreases the number of take-home doses that a patient would have in her possession at one time. To earn her fourth take-home, a patient must submit six consecutive weeks worth of drug-free urines. Once a patient has earned her fourth take-home dose, she continues to receive four take-homes as long as drug-free urine samples are provided. If a patient submits a positive urine, her fourth take-home is immediately revoked. The patient must then submit two drug-free urines to regain her fourth take-home. If a patient submits a second positive urine while on a three take-home schedule, her third take-home is revoked as well. She would then have to submit two consecutive negative urines to regain her third take-home and two additional consecutive urines to regain her fourth take-home. If a patient submits another positive urine while on a two take-home schedule, her second take-home would also be revoked. She would have to submit two consecutive negative urines to regain her second take-home, two additional consecutive urines to regain her third take-home, and two additional consecutive urines to regain her fourth take home.

Take-home number five:



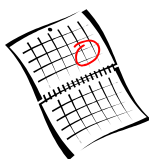
Once a patient has been enrolled with a clinic for nine months, federal regulations allow up to six take-homes. This means Clinic 1 has two more discretionary take-homes to work with. The clinic staff decides to use the fifth take-home to continue to reinforce abstinence from the targeted drugs. In order for a patient to receive a fifth take-home dose, she must have submitted at least eight consecutive negative urine screens. Once a patient has earned her fifth take-home dose, she continues to receive five take-homes as long as drug-free urine samples are provided. If a patient submits a positive urine, her fifth take-home is immediately revoked. The patient must then submit two consecutive drug-free urines to regain her fifth take-home. For each positive urine submitted, the patient loses take-homes in a step-wise fashion. She can regain take-homes in a step-wise fashion as well, regaining one take-home for every two consecutive negative urines submitted. All patients in the clinic who earn a fifth take-home dose receive it on Wednesdays. This limits the take-home supply to three consecutive days rather than four.

Take-home number six:



The Clinic 1 staff decides that the privilege of having to attend the clinic for dosing only once per week should be tied to higher level goals. In order to earn this privilege, a patient must have submitted at least ten consecutive negative urine screens for the targeted drugs; she must continue to submit urine screens that are negative for all illicit substances, including marijuana, and she must be able to document some productive daily activity such as employment or school attendance for at least 20 hours per week. As long as a patient can maintain these requirements, she can receive six take-homes per week. If a patient can no longer document productive activity, she loses her sixth take-home until she can again document achievement of this goal. If a patient tests positive for any illicit drug including marijuana, her sixth take-home is immediately revoked. The patient must then submit two consecutive drug-free urines to regain her sixth take-home. For each positive submitted, the patient loses take-homes in a step-wise fashion. She can regain take-homes in a step-wise fashion as well, regaining one take-home for every two consecutive negative urines submitted. For all patients in Clinic 1, the sixth take-home is awarded on Friday. This way all once per week patients are seen on Mondays providing more of an opportunity to assess them for drug use directly following the weekend.

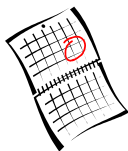
*Clinic 1 chose to continue to set a target behavior that is required of all patients to receive additional take-homes. A clinic may also choose to use a patient's treatment plan goals as a guide for setting individualized requirements for higher levels of take-outs. Several possible behaviors could be targeted. For example, a patient who continues to abuse alcohol could have his sixth take-home dose tied to submitting urine that is negative for all substances including alcohol. A patient who has no productive daily activity could have his sixth take-home tied to having a productive daily activity, such as full-time employment or student status. In this case, a patient would receive an additional take-home dose as long as he could verify employment or student status. For patients with serious psychiatric or medical problems, additional take-home doses could be tied to proof of medication compliance, or regular attendance of scheduled appointments or therapy sessions.*



13-day take-outs:

Once a patient has been enrolled in a clinic for a full year, federal regulations allow for up to 13 take-homes. Clinic 1 decides that for a patient to earn the privilege of only reporting to the clinic once every two weeks, the patient should have been on weekly dosing with no positive urines, including marijuana, for a minimum of three months. If a patient submits a positive urine screen, he returns to a six take-home schedule. He must remain on weekly dosing with no positive urines, including marijuana, for a

minimum of three months. If a patient continues to submit positive urine screens for targeted drugs other than marijuana, the patient loses take-homes in a step-wise fashion for every positive urine. He can regain take-homes in a step-wise fashion as well, regaining one take-home for every two consecutive negative urines submitted. Any patient who can no longer document 20 hours per week of constructive activity will be reduced to a five take-home schedule until he can again document achievement of this goal at which time he can return to the highest take-home status previously achieved.



### 27-day take-outs:

Once a patient has been enrolled in a clinic for two years, federal regulations allow for up to 27 take-homes. Clinic 1 decides that for a patient to earn the privilege of only reporting to the clinic once every month, the patient should have been on a 13-day take-out schedule with no positive urines, including marijuana, for a minimum of one year. If a patient submits a positive urine screen, he returns to a 13-day take-home schedule until he can submit six months of negative urine screens. If a patient continues to submit positive urine screens, the patient loses take-homes in a step-wise fashion for every positive urine. He can regain take-homes in a stepwise fashion as well. Any patient who can no longer document 20 hours per week of constructive activity will be reduced to a five take-home schedule until he can again document achievement of this goal, at which time he can return to the highest take-home status previously achieved.

## Starting a Contingency Management Protocol with Patients Who are Not New to the Clinic

The CM plan described above can be applied to all patients in a new clinic or to all new patients in an established clinic. However, in most cases, an established clinic will want to put such a protocol in place and apply it to all of their patients. The main modification for patients already attending a clinic for some time is that such patients can earn take-home doses more quickly. This is because the number of take-home doses allowed by federal regulation would not be as restrictive as for a new patient. For example, a patient who has been dosing at a clinic for a year is eligible for up to two weeks of take-home doses. Therefore, if such a patient has submitted negative urines for several months, but is currently not involved in any regular constructive activity, he could be moved up to dosing two times per week and the privilege of only having to dose once per week could be tied to documenting involvement in a constructive activity. In another case, a patient who has been with a clinic for a year may still be submitting positive urines. In this case, he would have to meet the same requirements for each take-home as a new patient, however he would be able to move up to dosing only twice a week much more quickly (i.e., after submitting eight consecutive drug-free urine screens).

## Designing Your Clinic's Contingency Management Protocol

As described in the above protocol, several decisions must be made in order to establish a CM protocol. Clinics must decide the maximum number of take-homes they are willing to provide and to what behavioral goal each one of those take-home privileges will be tied. Decisions must be made about what days particular take-home doses will be provided on, how frequently urine screens will be required, how often take-home dose schedules will be reviewed, etc. The above protocol is a template; however individual clinics may want to modify this protocol due to unique conditions at their clinic (e.g., number of days the clinic is open, how quickly urine screen results are available, or whether adequate resources are available to do weekly urine screens). The attached questionnaire is meant to be used for generating discussion within a team about the most feasible and acceptable form of CM protocol for that particular clinic. Where there is a strong recommendation for a particular decision, the recommendation will be noted beneath the question. A sample worksheet based on the Clinic 1 protocol example is attached for reference. Table 1 (page 53) describes the levels of take-homes available in Clinic 1, the requirements for achieving each level, and the consequences of violations of level requirements.

## *Contingency Management Staff Worksheet*

1. Maximum number of take-home doses allowed by this clinic:

- |                                  |                                  |
|----------------------------------|----------------------------------|
| <input type="checkbox"/> 1/week  | <input type="checkbox"/> 2/week  |
| <input type="checkbox"/> 3/week  | <input type="checkbox"/> 4/week  |
| <input type="checkbox"/> 5/week  | <input type="checkbox"/> 6/week  |
| <input type="checkbox"/> 13 days | <input type="checkbox"/> 27 days |

2. Frequency of urine testing at this clinic:

- ☐ More than 1/week  
☐ 1/week  
☐ 1/month  
☐ Less than 1/month

If your clinic tests less than 1/week, are there any strategies you could implement to increase testing (e.g., on-site test cups)?

***Once per week is recommended, once per month is feasible, less than once a month is not recommended.***

3. How quickly are urine screen results available to clinic staff?

- ☐ Immediately    ☐ After 1 day    ☐ 2 Days    ☐ 3 Days    ☐ 4 Days  
☐ 5 Days  
  
☐ 6 Days    ☐ One week    ☐ Longer than one week

4. Patients' take-home schedules will be reevaluated:

- ☐ Every week    ☐ Every month

5. Please indicate the length of time patient must attend the clinic, what goal is targeted, and how the attainment would be demonstrated for each take-home dose. *If clinic is closed one day each week, please check "clinic closed" at dose number one.*

DOSE #	WHEN ELIGIBLE	GOAL:	HOW DEMONSTRATED: (please describe)
DOSE 1	<input type="checkbox"/> Clinic closed <input type="checkbox"/> <b>Immediately</b> <input type="checkbox"/> <b>30 days</b> <input type="checkbox"/> 60 days <input type="checkbox"/> Other: _____	<b>Abstinence from: (check all that apply)</b> <input type="checkbox"/> Opiates <input type="checkbox"/> Cocaine <input type="checkbox"/> Amphetamines <input type="checkbox"/> Benzodiazepines <input type="checkbox"/> Other: _____	_____ _____ _____ _____
DOSE 2	<input type="checkbox"/> Clinic closed <input type="checkbox"/> <b>Immediately</b> <input type="checkbox"/> <b>30 days</b> <input type="checkbox"/> 60 days <input type="checkbox"/> Other: _____	<b>Abstinence from: (check all that apply)</b> <input type="checkbox"/> Opiates <input type="checkbox"/> Cocaine <input type="checkbox"/> Amphetamines <input type="checkbox"/> Benzodiazepines <input type="checkbox"/> Other: _____	_____ _____ _____ _____

DOSE #	WHEN ELIGIBLE	GOAL:	HOW DEMONSTRATED: (please describe)
DOSE 3	<input type="checkbox"/> 90 days <input type="checkbox"/> 6 months <input type="checkbox"/> 9 months <input type="checkbox"/> Other: _____	<b>Abstinence from: (check all that apply)</b> <input type="checkbox"/> Opiates <input type="checkbox"/> Cocaine <input type="checkbox"/> Amphetamines <input type="checkbox"/> Benzodiazepines <input type="checkbox"/> Other: _____	_____ _____ _____ _____ _____
DOSE 4	<input type="checkbox"/> 6 months <input type="checkbox"/> 9 months <input type="checkbox"/> 1 year <input type="checkbox"/> Other: _____	<b>Abstinence from: (check all that apply)</b> <input type="checkbox"/> Opiates <input type="checkbox"/> Cocaine <input type="checkbox"/> Amphetamines <input type="checkbox"/> Benzodiazepines <input type="checkbox"/> Other: _____	_____ _____ _____ _____ _____
DOSE 5	<input type="checkbox"/> 9 months <input type="checkbox"/> 1 year <input type="checkbox"/> 2 years <input type="checkbox"/> Others: _____	<b>Abstinence from: (check all that apply)</b> <input type="checkbox"/> Opiates <input type="checkbox"/> Cocaine <input type="checkbox"/> Amphetamines <input type="checkbox"/> Benzodiazepines <input type="checkbox"/> Other : _____	_____ _____ _____ _____ _____
DOSE 6	<input type="checkbox"/> 9 months <input type="checkbox"/> 1 year <input type="checkbox"/> 2 years <input type="checkbox"/> Others: _____	Abstinence from: <input type="checkbox"/> Marijuana   or <input type="checkbox"/> Alcohol <input type="checkbox"/> 20 hours/week constructive activity <input type="checkbox"/> Goal defined by pt's treatment plan <input type="checkbox"/> Other: _____	_____ _____ _____ _____ _____
13-DAY TAKE-HOME	<input type="checkbox"/> 1 year <input type="checkbox"/> 2 years <input type="checkbox"/> 3 years <input type="checkbox"/> Other: _____	Abstinence from: <input type="checkbox"/> Marijuana   or <input type="checkbox"/> Alcohol <input type="checkbox"/> 20 hours/week constructive activity <input type="checkbox"/> Goal defined by pt's treatment plan <input type="checkbox"/> Other: _____	_____ _____ _____ _____ _____
27-DAY TAKE-HOME	<input type="checkbox"/> 2 years <input type="checkbox"/> 3 years <input type="checkbox"/> Other: _____	Abstinence from: <input type="checkbox"/> Marijuana   or <input type="checkbox"/> Alcohol <input type="checkbox"/> 20 hours/week constructive activity <input type="checkbox"/> Goal defined by pt's treatment plan <input type="checkbox"/> Other: _____	_____ _____ _____ _____ _____

6. Please indicate on which day each take-home will be awarded.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Dose # _____	Dose # _____	Dose # _____	Dose # _____	Dose # _____	Dose # _____	Dose # _____

***It is recommended that take-homes are spaced evenly over the week as much as possible to limit the number of doses that a patient is carrying home at one time.***

7. For each take-home dose, please specify under what conditions the dose can be revoked.

Dose:	Can be revoked for the following reason:
1	
2	
3	
4	
5	
6	
13	
27	

*We strongly recommend a client/case manager contract so that both the client and the case manager are aware of exactly what is required from the client to earn take-home doses. The following page is a sample of such a contract based on the CM plan described for Clinic 1.*



## Sample Take-Home Earning Contract

This is a contract between (client) and (case manager) that specifies how take-home privileges can be earned.

A “drug-free urine” is defined as a urine sample free of opiates, cocaine, amphetamines, and benzodiazepines. All clients must submit a urine sample when requested. Urine samples will be requested *at least* once per week.

This clinic is open Monday through Saturday. All clients automatically receive one take-home dose for Sunday when they enroll in the clinic.

Clients are eligible for a second take-home day (Saturday) when they enroll in the clinic. The second take-home day will be earned after two consecutive drug-free urine samples are submitted.

Clients are eligible for a third take-home day (Thursday) when they have attended the clinic for three months. The third take-home day will be earned after at least four consecutive drug-free urines have been submitted.

Clients are eligible for a fourth take-home day (Tuesday) when they have attended the clinic for six months. The fourth take-home day will be earned after at least six consecutive drug-free urines have been submitted.

Clients are eligible for a fifth take-home day (Wednesday) when they have attended the clinic for nine months. The fifth take-home day will be earned after at least eight consecutive drug-free urines have been submitted.

Clients are eligible for a sixth take-home day (Friday) when they have attended the clinic for nine months. The sixth take-home day will be earned after at least ten consecutive drug-free urines have been submitted. To earn the sixth take-home day clients must also test negative for marijuana and document involvement in some structured activity (e.g., employment, school, volunteer work) at least 20 hours per week.

Clients are eligible to receive 13 take-home doses when they have attended the clinic for one year. A client is eligible to receive 13 take-home doses when they have been on a six take-home schedule for a minimum of three months with negative urine screens for all drugs including marijuana. Clients must also continue to document involvement in some structured activity at least 20 hours per week.

Clients are eligible to receive 27 take-home doses when they have attended the clinic for two years. A client is eligible to receive 27 take-home doses when they have been on a 13-day take-home schedule for a minimum of one year with negative urine screens for all drugs including marijuana. Clients must also continue to document involvement in some structured activity at least 20 hours per week.

## **Loss of Take-Home Privileges:**

### **Two through Five Take-Homes:**

Any client submitting a positive urine for opiates, cocaine, amphetamines, or benzodiazepines, will immediately have her take-home privileges reduced by one. Additional positive urine tests will result in additional decreases in take-homes. Clients can regain one take-home for every two consecutive urine screens that are submitted.

### **Six Take-Homes:**

Any client submitting a urine test positive for any illicit drug including marijuana will immediately have her take-home privileges reduced to five per week. To regain a six-day take-home schedule, she must submit two consecutive urine screens negative for all illicit substances including marijuana. In addition, any client who can no longer document a minimum of 20 hours per week of constructive activity (e.g., employment, school attendance, volunteer work), will have her take-home privileges reduced to five per week until she can again document achievement of this goal.

### **Thirteen Take-Homes:**

Any client submitting a urine test positive for any illicit drug including marijuana will immediately have her take-home privileges reduced to six per week. To regain a 13 take-home schedule, she must submit three months of urine screens negative for all illicit substances including marijuana. In addition, any client who can no longer document a minimum of 20 hours per week of constructive activity will have her take-home privileges reduced to five per week until she can again document achievement of this goal.

### **Twenty-seven Take-Homes:**

Any client submitting a urine test positive for any illicit drug including marijuana will immediately have her take-home privileges reduced to 13. To regain a 27 take-home schedule, she must submit six months of urine screens negative for all illicit substances including marijuana. In addition, any client who can no longer document a minimum of 20 hours per week of constructive activity will have her take-home privileges reduced to five per week until she can again document achievement of this goal.

I have read or have had read to me all of the above and agree to the terms of this contract.

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Client's Signature

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Date

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Case Manager's Signature

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Date

**Sample (Table 1)**  
Methadone Take-Home Dose Requirements for Clinic 1

<b>Number of Take-Home Doses</b>	<b>Time in Treatment</b>	<b>Requirements</b>	<b>To Regain Status</b>
2 per week	N/A	2 consecutive negative urine screens *	2 consecutive negative urine screens *
3 per week	3 months	4 consecutive negative urine screens *	2 consecutive negative urine screens *
4 per week	6 months	6 consecutive negative urine screens *	2 consecutive negative urine screens *
5 per week	9 months	8 consecutive negative urine screens *	2 consecutive negative urine screens *
6 per week	9 months	1) 10 consecutive negative urine screens * 2) Most recent urine screen also negative for marijuana 3) 20 hours/week of documented constructive activity	1) 2 consecutive urine screens negative for all illicit substances including marijuana 2) 20 hours/week of documented constructive activity
13 per 2 weeks	1 year	1) Three months of negative urine screens for all drugs including marijuana. 2) 20 hours/week of documented constructive activity.	1) Three months of negative urine screens for all drugs including marijuana. 2) 20 hours/week of documented constructive activity.
27 per 4 weeks	2 years	1) One year of negative urine screens for all drugs including marijuana. 2) 20 hours/week of documented constructive activity.	1) Six months of negative urine screens for all drugs including marijuana. 2) 20 hours/week of documented constructive activity.

\* Urine screen negative for heroin, cocaine, benzodiazepines, and amphetamines.

